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## **Abstract**

The invention relates to a wireless radiofrequency data communication system comprising:

- a base-station comprising a multiple of N first groups and a signal processing-unit
  comprising memory means and processing means, wherein each first group comprises a
  receiver-unit provided with a receiver and at least one antenna which is connected to the
  receiver-unit, wherein the signal processing-unit is connected with each of the first groups
  for processing receive-signals generated by each of the first groups, and
- a multiple of M second groups for transmitting radiofrequency signals to the first groups, wherein each second group comprises a transmitter-unit provided with a transmitter and at least one antenna which is connected to the transmitter-unit,

wherein the memory means of the signal processing-unit is provided with means comprising information about the transfer-functions of radiofrequency signals from each of the antennas of the second groups to each of the antennas of the first groups, and wherein the transmitters and receivers operate on essentially the same radiofrequency or radiofrequency-band.